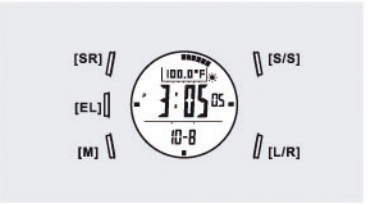
1.0 Introduction

- Thank you for purchasing of this Watch. Your Watch features electronic sensors which measures and shows the outdoor conditions: weather forecast, temperature, pressure, altitude and compass directions.
- Your Watch provides the essential information at the time during you are performing hiking, wild camping and other outdoor activities especially for a prolonged period.
- Your Watch also includes current time, daily alarm, chronograph, timer, pacer and dual time function.
- Your Watch is carefully designed and produced for outdoor activities which need to stay for a period, in order to utilize these features of your watch, it is advisable to read the following instructions:
  - Read the instruction before using the Watch.
  - Avoid exposing your Watch to extreme conditions for an unreasonable time.
  - Avoid rough usages or severe impacts to your Watch.
  - Do not open the Watch's case unless a certified service agency because your WeatherMaster contains precise electronic sensors and components.
  - Clean your Watch with a soft cloth occasionally that working for a longer use life of your watch.
  - Keep your Watch away from magnets or the appliances which contains magnetic objects such as mobile phones, speakers and motors.
  - Store your Watch in a dry place when it is not in use.

2.0 Buttons and Its Functions -*Model C and Model D*



Mode Button [M]

- To select among the Current Time, Daily Alarm, Chronograph, Timer, Pacer and Dual Time Mode.
- To select among the setting items during setting display.

Sensor Button [SR]

- To select among the Altimeter, Barometer and Compass Mode.

Start/Stop Button [S/S]

- To select between functional displays under the same mode.
- To activate the 'start' or 'stop' chronograph function during chronograph mode.
- To toggle Yes/No.
- To increase the digits during setting display.

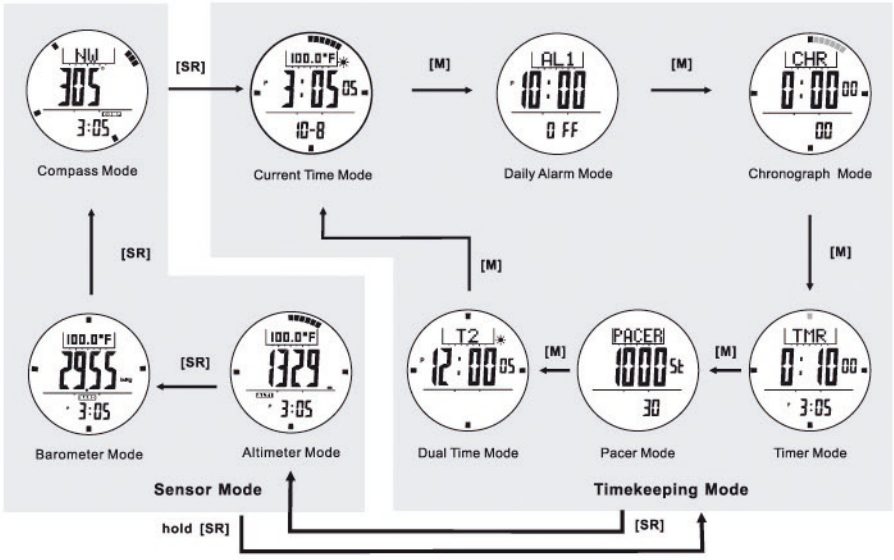
Lap/Reset Button [L/R]

- To activate the 'lap' or 'reset' chronograph function during chronograph mode.
- To move the cursor to left by one during History recalling display.
- To decrease the digits under setting display.
- To toggle Yes/No.

EL Button [EL]

- To turn on the EL back light for about 3 seconds.

3.0 Major Function Modes - *Timekeeping Mode and Sensor Mode*



14.0 Specifications

Current Time Mode

- Hour, minute, second, am, pm, month, date, and day of week/ sea level pressure history display/ altitude history/ temperature

Time System

- 12-hour or 24-hour format

Calendar System

- Auto-Calendar pre-programmed from the year 2004 to 2099

Weather Forecast

- 4 symbols to indicate the predicated weather

Daily Alarm Mode

- 2 daily alarms
- Hourly chime

Alarm Sound

- Sounds for 30 seconds at preset time of real time clock

Chronograph Mode

Resolution

- 1/100 second

Measuring Range

- 99 hours 59 minutes 59.99 seconds

Measuring Mode

- 100 lap memories
- Recall lap memories and total time

Timer Mode

Resolution

- 1 second resolution

Measuring range

- 99 hours 59 minutes 59 seconds

Operation Mode

- Countdown

Quick Set

- 6 quick set Values (1, 3, 5, 10, 15 and 45 minutes)

Timer Sounds

- Sounds for 30 seconds when count to zero

Pacer Mode

Measuring range

- 30 BPM to 180 BPM
- 5 BPM per step

Step counter

- Up to 99999 steps

14.0 Specifications

Altimeter Mode

Resolution

- 1m (1ft)

Measuring range

- -706m to 9164m (-2316ft to 30065ft)

Sampling Interval

- First 5 minutes: 1 second
- After 5 minutes: 1 minute

History Recall

Barometer Mode

Resolution

Measuring Range

- 300 hPa/mbar to 1100 hPa/mbar (8.85 inHg to 32.48 inHg)

Sampling Interval

- First 5 minutes: 1 second
- After 5 minutes: 1 minute

History Recall

Thermometer

Resolution

- 0.1 °C (0.1°F)

Measuring range

- -10.0 °C to 60.0 °C (14.0 °F to 140.0 °F)

Compass Mode

Resolution

- 1° display (digital)
- 1 of 60 pointers (graphical)

Measuring range

- 0° to 359° (digital)
- 1 to 60 pointer (graphical)

Others

- Digital bearing reading Lock
- Digital backward bearing

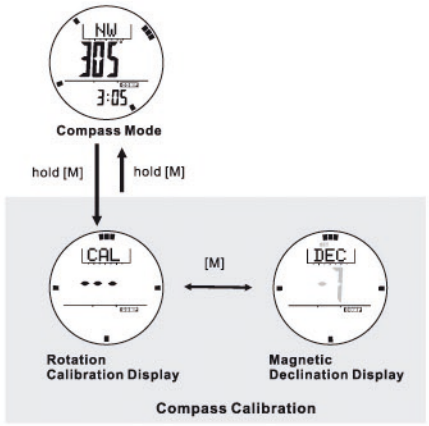
Backlight

- Electro-Luminescent (EL) backlight

Battery

- Single 3V lithium battery (CR2032)

12.8 Calibrating Mode - Calibration the Compass



When to Calibrating the Compass

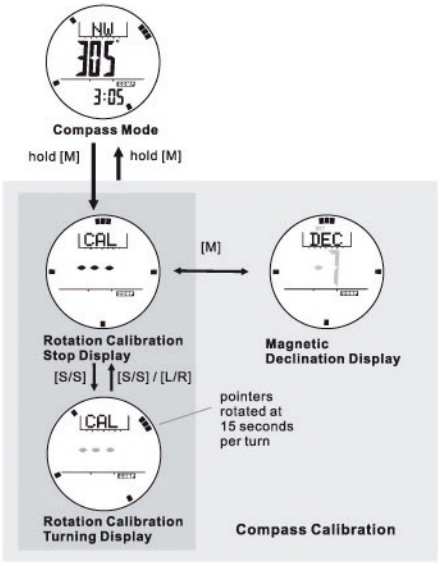
- The Watch has to employ a compass calibration in one of the following conditions:
  1) The Watch is using for the first time,
  2) The battery has been replaced,
  3) The bearing direction digits are flashing, and the "***OFF CAL***" indicator appear,
  4) The compass use in a location that is apart from the place in which the compass had been calibrated,
  5) The user intends to regulate the precision of the digital compass.

How to Calibrate the Compass

- The compass calibration includes two different processes: Rotation Calibration Mode and Magnetic Declination Setting.
- It is advisable to carry out them both from time to time, that achieves a more accurate reading.

IMPORTANT: If the Watch has not been calibrated, the direction made by the Watch may be a inaccurate direction.

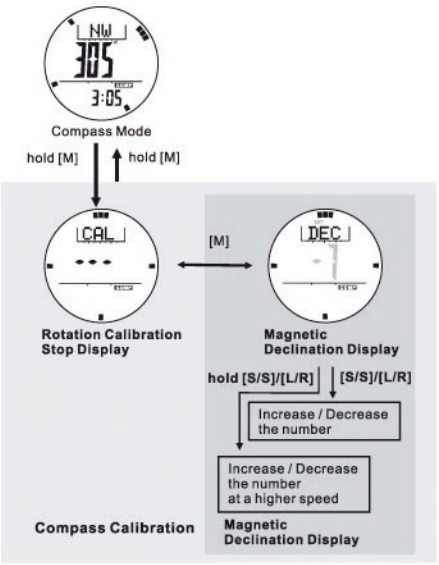
12.9 Calibrating the compass - Compass Rotation Calibration Mode



Rotation Calibration Display

- To select the Rotation Calibration Display, hold the [M] button in Compass Mode.
- To start rotation calibration, press [S/S] button once. The pointers will start rotating, turning the watch (keep parallel to the horizon) in the same direction of the rotating pointers for more than 2 turns.
- Press [S/S] or [L/R] button to stop the calibration when the 2-turn rotation calibration is completed.
- When the pointer stop rotating, hold the [M] button to back to the Compass Mode or press the [M] button once to set the magnetic declination.

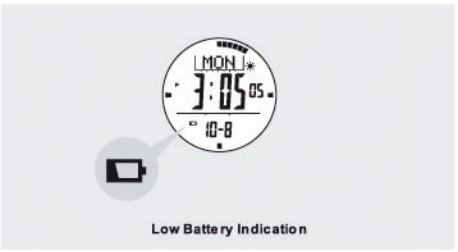
12.10 Calibrating the compass - Magnetic Declination Mode



Magnetic Declination Mode

- Check the coming section "Magnetic Declination at Major Cities" to get the magnetic declination of the city which is close to your current position. That angle will be inputted into the Watch during the calibration.
- To select Magnetic Declination Display, press the [M] button in Rotation Calibration Display.
- When the current magnetic declination is appeared, press the [S/S] or [L/R] button to increase / decrease the number. (Hold down the button changes the number at a higher speed).
- If the setting is completed, hold the [M] button to confirm setting and exit the adjustment display.

13.0 Low Battery Indication & Battery Replacement



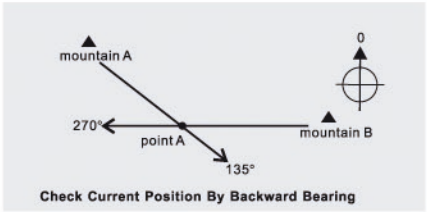
Low Battery Detection

- When the battery-low indicator appears on the display, it means that the capacity of the battery is low. It is recommended to replace the battery with a new CR2032.
- However, if the appearance of battery-low indicator is caused by using the Watch under very cold condition, the indicator will be disappeared when normal temperature returns.

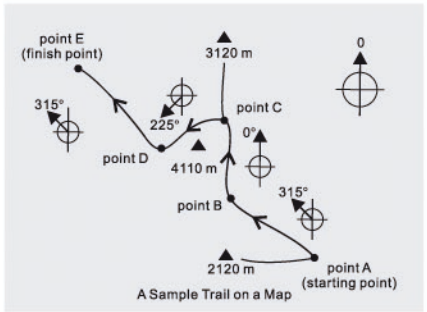
NOTE: It is recommended to complete the battery replacement by a certified service agency, because this Watch contains precise electronic sensors and components.

NOTE: The memory will be cleared, if the battery has been replaced. Follow the previous section "Calibrating the Compass" to calibrate the compass before using the Compass.

12.4 Compass Mode - *Applications of the Compass*



Check Current Position By Backward Bearing



A Sample Trail on a Map

Check your position by Backward Bearing Directions

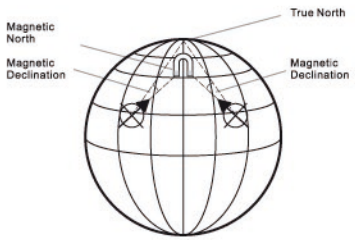
- Spot two distant identifiable landmarks such as mountains, light-house, fort and building of your current position, for example the mountain A and B.
- Check out the backward bearing directions of mountain A and B of your current position, such as 135° from mountain A and 270° from mountain B.
- Use a ruler to draw the line 135° on the map which starting from the mountain A. Draw the lines 270° on the map which starting from the mountain B.
- Your current position on the map will be the intersection point (point A) of the lines 135° and 270°

Check the Trek Course Correct

- During a trekking, the Watch can keep your course correct. For example, the correct trail starts from point A and finishes at point E as it is drawn on the adjacent map.
- Mark the points (identifiable landmarks) where the trail turns its direction or the trail branches its way, such as the point A, B, C, D and E on the adjacent map.
- Find out the bearing directions of point B from point A (315°), point C from point B (0°), point D from point C (225°), and then point E from point D (315°).
- During the trekking, make sure that the heading direction is 315° from point A to point B. Performing the similar checking in other sections of the trail.

IMPORTANT: If you are in doubt of the directions and positions of the trail, consulting the park administration office before starting the trekking.

12.5 Compass Mode - *Magnetic Declination*



What is Magnetic Declination

- The Magnetic North Pole which is slightly different from the True North Pole.
- The WeatherMaster, like most magnetic compass, points to the Magnetic North Pole. On the contrary, everything measure from a map is related to the True North Pole.
- The angular difference between Magnetic North Pole and True North Pole is called magnetic declination. Its amount (degrees and minutes) and direction (easterly and westerly) depend on where you are in the world.
- For serious compass user or who intends to perform accurate navigation, compass must be adjusted for magnetic declination.
- The Watch also includes a compensation setting for Magnetic Declination. Check the coming section "Calibrating the compass - Magnetic Declination Mode" for more detail.

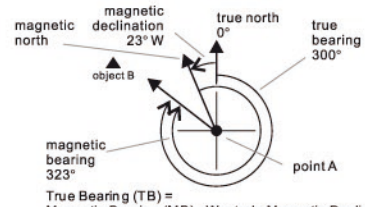
Magnetic Declination Information

- Most topographic maps include a small arrow which shown magnetic north pole and or the magnetic declination information.
- For the benefit of the WeatherMaster user, this manual includes the magnetic declination for some major cities. Check the coming section 'Magnetic Declination at Major Cities' for more detail.
- For the cities are not included in the list, please refer to the online magnetic declination information at:

  1.http://www.geolab.nrcan.gc.ca/geomag/e_cgrf.html

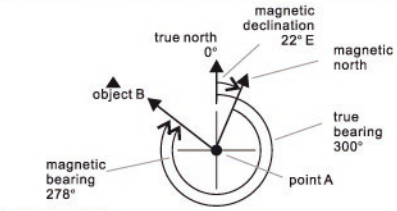
  2.http://www.ngdc.noaa.gov/cgi-bin/seg/gmag/fldsnth1.pl

12.6 Compass Mode - *Magnetic Declination Compensation*



True Bearing (TB) =
Magnetic Bearing (MB) - Westerly Magnetic Declination (W)
300° (TB) = 323° (MB) - 23° (W)

Compensate the Bearing with Westerly (W) Magnetic Declination



True Bearing (TB) =
Magnetic Bearing (MB) + Easterly Magnetic Declination (E)
300° (TB) = 278° (MB) + 22° (E)

Compensate the Bearing with Easterly (E) Magnetic Declination

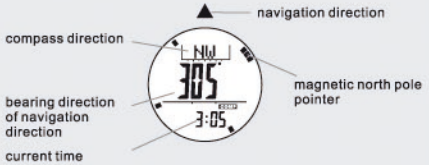
Magnetic Declination Compensation

- To compensate an object's bearing by subtract westerly (W) magnetic declination or add easterly(E) magnetic declination with the magnetic bearing.
- **Example 1**: 23° Westerly magnetic declination and the compass needle points 323°.
  - TB = MB - W. While MB = 323° ; W =23°
  - TB = 323° - 23°
  - TB = 300°
  - The true bearing will be 300°.
- **Example 2**: 22° Easterly magnetic declination and the compass needle points 278°.
  - TB = MB + E. While MB = 278° ; E = 22°
  - TB = 278° + 22°
  - TB = 300°
  - The true bearing will be 300°.
- The Watch allows you compensate the compass bearing at a place where the magnetic declination is either Westerly declination or Easterly declination.
- Check the coming section "Calibrating the Compass" for more detail of the setting.

12.7 Compass Mode - *Magnetic Declination at Major Cities*

No.	Country/Place	Major City	Declination
1	Afghanistan	Kabul	2-E
2	Australia	Canberra	12-E
3	Austria	Vienna	2-E
4	Bahrain	Manama	2-E
5	Bangladesh	Dhaka	0
6	Belgium	Brussels	1-W
7	Brazil	Brasilia	19-W
8	Canada	Ottawa	14-W
9	Chile	Santiago	5-E
10	China	Beijing	6-W
11	China	Hong Kong	2-W
12	Costa Rica	San Jose	0
13	Cuba	Havana	3-W
14	Czech Republic	Prague	2-E
15	Denmark	Copenhagen	1-E
16	Egypt	Cairo	3-E
17	Finland	Helsinki	6-E
18	France	Paris	1-W
19	Germany	Berlin	1-E
20	Greece	Athens	3-E
21	Hungary	Budapest	4-E
22	India	New Delhi	1-E
23	Indonesia	Jakarta	1-E
24	Israel	Jerusalem	3-E
25	Italy	Rome	1-E
26	Japan	Tokyo	7-W
27	Jordan	Amman	3-E
28	Kenya	Nairobi	1-E
29	Korea	Seoul	7-W
30	Malaysia	Kuala Lumpur	1-E
31	Mexico	Mexico City	6-E
32	Nepal	Kathmandu	0
33	Netherlands	Amsterdam	1-W
34	New Zealand	Wellington	22-E
35	Norway	Oslo	0
36	Pakistan	Islamabad	2-E
37	Philippines	Manila	1-W
38	Portugal	Lisbon	5-W
39	Russia	Moscow	9-E
40	Singapore	Singapore	0
41	South Africa	Cape Town	23-W
42	Spain	Madrid	3-W
43	Sweden	Stockholm	3-E
44	Switzerland	Bern	0
45	Taiwan	Tai-pei	3-W
46	Thailand	Bangkok	0
47	UAE	Abu Dhabi	1-E
48	United Kingdom	London	3-W
49	United States	Washington, DC	10-W
50		Juneau	25-E
51		Phoenix	12-E
52		Little Rock	2-E
53		Sacramento	16-E
54		Denver	10-E
55		Atlanta	4-W
56		Honolulu	10-E
57		Boston	16-W
58		Saint Paul	2-E
59		Jackson	1-E
60		Santa Fe	10-E
61		Oklahoma City	6-E
62		Salem	18-E
63		Harrisburg	11-W
64		Salt Lake City	14-E

12.0 Compass Mode - *Precautions*

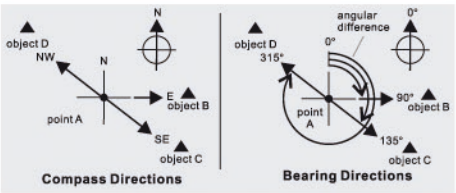


Digital Compass Mode

The Precautions when Using the Compass

- Keep your Watch away from magnets or the appliances which may contain magnetic objects such as mobile phones, speakers, motors and etc.
- The Watch, like most magnetic compass, points to the magnetic north which is slightly different from the true north. Check the 'What is Magnetic Declination' section for more detail.
- Perform the compass calibration from time to time, because the calibration reinforces the precision of the compass.
- To achieve a accurate result, you should avoid measuring direction on the following conditions:
  1) The watch is placed close to a magnetic objects,
  2) The watch is placed close to a metal objects,
  3) The watch is placed close to an electrical appliances, and
  4) The watch is placed inside a moving object or a ferroconcrete building.

12.1 Compass Mode - Compass Directions and Bearing Directions



Compass Directions **Bearing Directions**

Marks	Compass Directions	Bearing Directions
N	North	349° - 11°
NNE	North Northeast	12° - 33°
NE	Northeast	34° - 56°
ENE	East Northeast	57° - 78°
E	East	79° - 101°
ESE	East Southeast	102° - 123°
SE	Southeast	124° - 146°
SSE	South Southeast	147° - 168°
S	South	169° - 191°
SSW	South Southwest	192° - 213°
SW	Southwest	214° - 236°
WSW	West Southwest	237° - 258°
W	West	259° - 281°
WNW	West Northwest	282° - 303°
NW	Northwest	304° - 326°
NNW	North Northwest	327° - 348°

The Direction of an Object

- The direction of an object from a point can be specified in either compass directions or bearing directions.
- The Watch includes both compass directions and bearing directions.

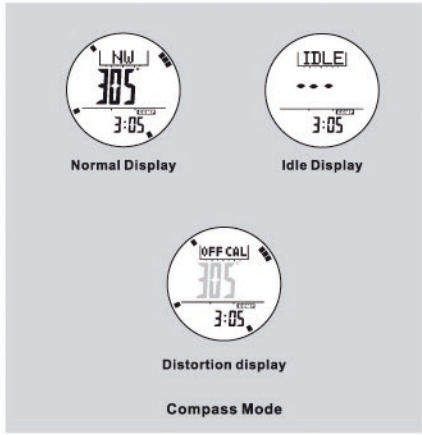
The Compass Directions

- The compass directions are shown on the adjacent table.
- For example, in the figure on the left, the compass direction of object B from point A is East. The compass direction of object C from point A is Southeast. The compass direction of object D from point A is Northwest.

The Bearing Directions

- The Bearing direction of an object is defined as theangular difference between North and the object. (Assume 0° for North, and the measuring range is from 0° to 359°).
- For example, in the figure on the left, the bearing direction of object B from point A is 90°. The bearing direction of object C from point A is 135°. The bearing direction of object D from point A is 315°.

12.2 Compass Mode - *Compass Mode*



Compass Mode

- In the Compass Mode, the top of the display shows the compass direction.
- The middle display shows the bearing direction.
- The bottom display shows the current time in hour and minute.
- The pointer encircled the display shows the direction of magnetic North analogically.

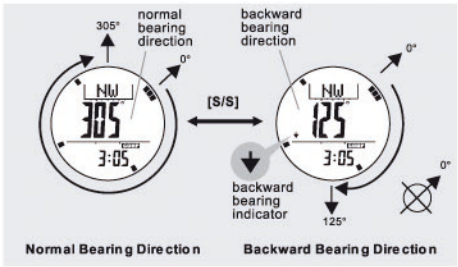
IDLE Mode

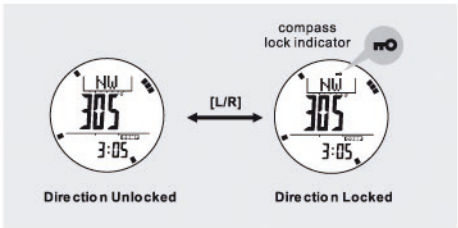
- If no any key operation for about 1 minute, the Watch will go to the IDLE Mode automatically. To activate the compass again, press any button.

Distortion

- If distortion is detected, the indicator "***OFF CAL***" with flashing direction digits will appear.
- Please refer to the coming section "Calibrating the Compass" to restore the compass to normal operation when distortion occur.

12.3 Compass Mode - *Backward Bearing Direction and Compass Lock*





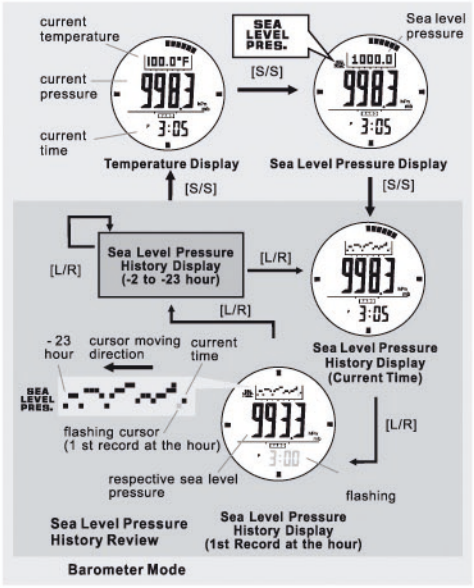
Backward Bearing Direction

- The Watch includes a backward bearing function.
- The backward bearing direction is the bearing direction that on the opposite direction from normal bearing direction.
- When the 'Backward Bearing' indicator " ↓ " is appeared, the Watch is showing the backward bearing direction of the navigation direction.
- In Compass Mode, press the [S/S] button to select between normal and backward bearing direction.

Compass Lock

- The Watch includes a compass lock function that locks the important direction reading.
- in Compass Mode, press the [L/R] button to lock/unlock the direction reading.
- When the "Lock" indicator, " mO " is appeared, the compass direction, bearing direction and the magnetic north pole pointer are locked.
- Compass Lock will be released automatically when the Watch enter IDLE Mode.

11.0 Barometer Mode - *Temperature and History Display*



Functional Display

- The Watch includes three Barometer functional displays: Temperature, Sea Level Pressure and History Display.
- One of the three functional displays will be appeared on the top row of the display. The current (history) pressure and the current (history) time shows on the middle row and bottom row of the display respectively.
- To perform force detect function which get one reading immediately, hold down [L/R] button.

Temperature Display

- In Temperature Display, the current temperature in degree Celsius (°C) or degree Fahrenheit (°F) shows on the top row of the display.

IMPORTANT: If you want to have an accurate reading of air temperature, you must remove the Watch from the wrist (for 20 to 30 minutes) that allows no body temperature effect on your watch.

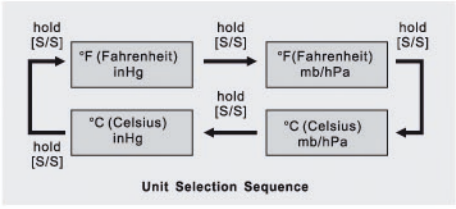
Sea Level Pressure Display

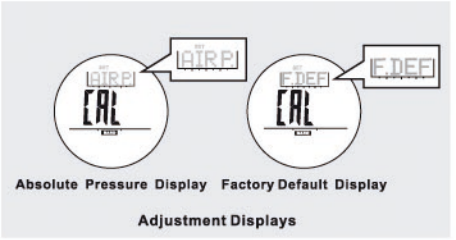
- In Sea Level Pressure Display, the current sea level pressure shows on the top row of the display.

Sea Level Pressure History Display

- The Watch records the sea level pressure reading automatically every hour at the hour, i.e 1:00, 2:00, 3:00 and etc. These records will be plotted into a pressure record graph.
- In Sea Level History Display, the pressure record graph shows on the top row of the display.
- To review the pressure records of the last 23 hours, press the [L/R] button to move cursor left cyclically, then the respective pressure record and its recording time (flashing) will appear on the display following the adjacent diagram.

11.1 Barometer Mode - *Unit Selection and Barometer Adjustment*





How to Switch between Units

- The Watch can display pressure in mb/hPa or inHg; the Watch can display temperature in degree Celsius (°C) or degree Fahrenheit (°F).
- To switch among different unit, hold down the [S/S] button to change the units following the adjacent units selection sequence.

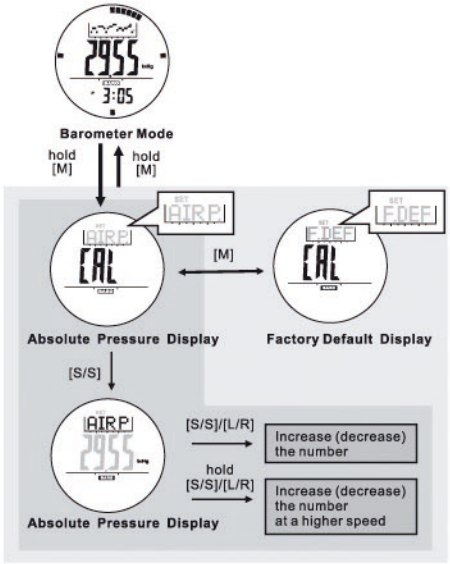
Why the Barometer Need to be Adjusted

- The Watch was calibrated for you in the factory. For normal use, you need not to calibrate the Barometer.
- But for vigorous users, the Watch includes a adjustment procedure.

Barometer Adjustment

- There are 2 kinds of Barometer adjustment method: Absolute Pressure and Factory Default Adjustment.
- Absolute Pressure: Input the known atmospheric pressure into the Watch directly.
- Factory Default: Restore the Watch to factory default setting.
- For in-depth information for each of the adjustment methods, it will be given in the coming sections.

11.2 Barometer Mode - *Absolute Pressure Adjustment*



Before Calibrating the Barometer

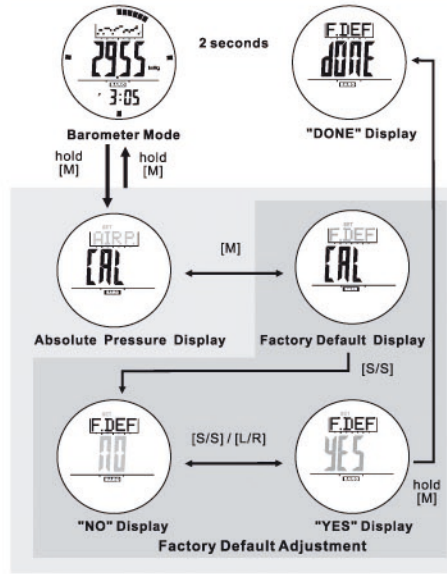
- Before calibrate the Barometer, you must have the absolute pressure of your current position, because that pressure value will be inputted into the Watch during the adjustment.
- Consult the nearest observatory station to get the ambient barometric pressure of your current position.

IMPORTANT: Input an incorrect pressure during the calibration procedure, it results a mistaken pressure reading in future.

How to Adjust the Barometer by Using Absolute Pressure Adjustment

- The Watch can adjust the current pressure reading to a absolute pressure value.
- To select the Adjustment Display, hold the [M] button in Barometer Mode. Then press the [M] button to select between the Absolute Pressure Adjustment and Factory Default Adjustment.
- To adjust the Watch by using Absolute Pressure Adjustment, press the [S/S] button in Absolute Pressure Display, and the pressure reading will appear.
- When pressure reading is appear, press the [S/S] or [L/R] button to increase / decrease the number. (Hold down the button changes the number at a higher speed).
- If the setting is completed, hold the [M] button to confirm setting and exit the adjustment display.

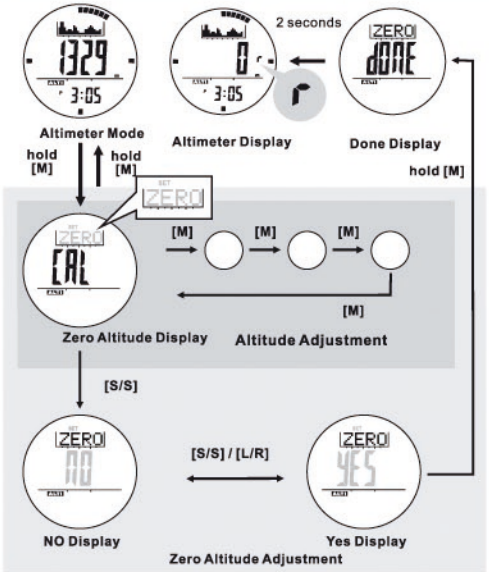
11.3 Barometer Mode - *Factory Default Adjustment*



How to Adjust the Barometer by Using Factory Default Adjustment

- The Watch can also adjust the pressure reading calculation back to using factory default value.
- To select the Adjustment Display, hold the [M] button in Barometer Mode. Then press the [M] to select between Absolute Pressure Adjustment and Factory Default Adjustment.
- To adjust the Watch by using factory default adjustment, press the [S/S] button in Factory Default Display, and the indicator "NO" will appear.
- When the indicator "NO" is appeared, press the [S/S] or [L/R] button to select between "YES" (reset the Watch to factory default) or "NO" (abort the resetting).
- To exit Adjustment Display, hold the [M] button for 2 seconds, and then the Watch will go back to Barometer Mode. If the "YES" Display is selected when exit the Adjustment Display, the "DONE" Display will appear for 2 seconds prior to the normal operation.

10.2 Altimeter Mode - *Zero Altitude Adjustment*



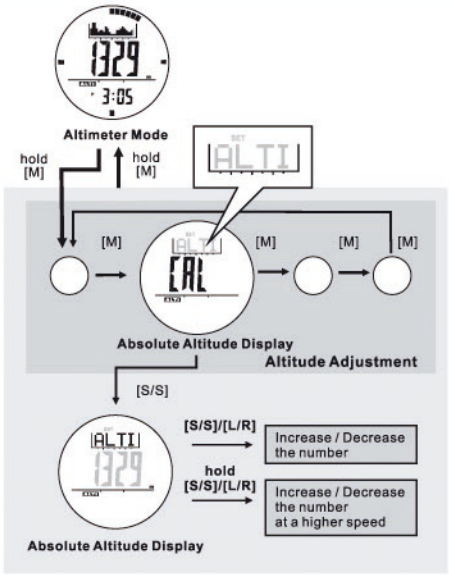
How to Measure the Relative Altitude

- The Watch can measure relative altitude, for example, it can measure the ascending or the descending altitude between the starting point and the finish point of a trail.
- To measure the ascending or descending altitude of a trail by setting the current altitude to 'zero' mandatory (by below) at a reference point such as the starting point of a trail. An '**r**' indicator will be appeared on the display.

Adjust the Altimeter by Using Zero Altitude Adjustment

- To select the Adjustment Display, hold the [M] button in Altimeter Mode. Then press the [M] button to select among the Zero Altitude, Absolute Altitude, Sea Level Pressure and Factory Default Adjustment.
- To adjust the Watch by using Zero Altitude Adjustment, press the [S/S] button in Zero Altitude Display, and the indicator "NO" will appear.
- When the indicator "NO" is appeared, press the [S/S] or [L/R] button to select between "YES" (reset the Watch to zero) or "NO" (abort the resetting). When "YES" or "NO" is selected, hold the [M] button to confirm the setting.
- To exit Adjustment Display, hold the [M] button for 2 seconds, and then the Watch will go back to Altimeter Mode. If the "YES" Display is selected when exiting the Adjustment Display, the "DONE" Display will appear for 2 seconds prior to the normal operation.
- To restore the Watch to factory default, please refer to the coming section "Altimeter Mode - Factory Default Adjustment" for more detail.

10.3 Altimeter Mode - *Absolute Altitude Adjustment*



Why the Altitude Need to be Adjusted

- As the absolute altitude is calculated from air pressure, the change of air pressure would affect the altitude reading.
- To achieve a more accurate reading, the WeatherMaster needs to be calibrated from time to time as pressure may change gradually even within hours.

Before Adjusting the Altitude

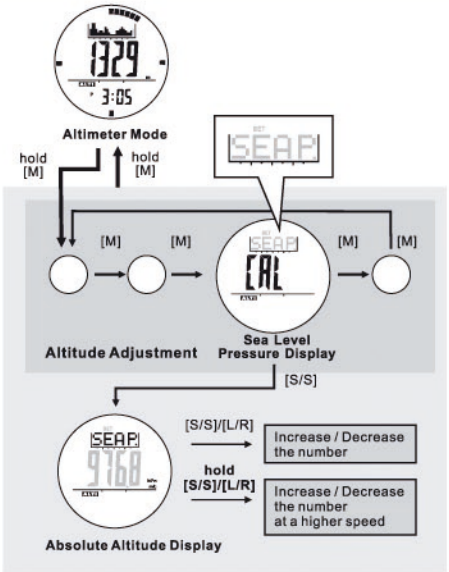
- Adjusting the altimeter at a place where the altitude is determined, such as sea level (0m) or beside an altitude sign pole (e.g., 89 m), because that altitude will be inputted into the Watch during the adjustment.

IMPORTANT: Input an incorrect altitude during the adjustment, it results a mistaken altitude in future.

To Adjust the Altimeter by Using Absolute Altitude Adjustment

- The Watch can adjust the current altitude reading to an absolute altitude value.
- To select the Adjustment Display, hold the [M] button in Altimeter Mode. Then press the [M] button once again to select among the Zero Altitude, Absolute Altitude, Sea Level Pressure and Factory Default Adjustment.
- To adjust the Watch by using Absolute Altitude Adjustment, press the [S/S] button in Absolute Altitude Display, and the altitude reading will appear.
- When altitude reading is appeared, press the [S/S] or [L/R] button to increase or decrease the number to the target one. (Hold down the button changes the number at a higher speed).
- If the setting is completed, hold the [M] button to confirm setting and exit the adjustment display.

10.4 Altimeter Mode - *Sea Level Pressure Adjustment*



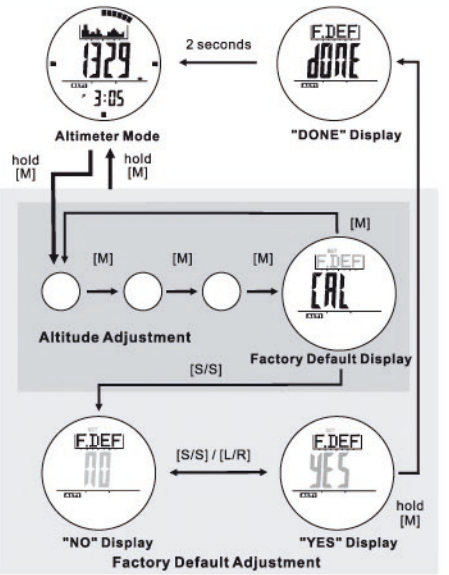
Why Need to adjust the Sea Level Pressure

- As altitude is calculated by the difference between current and sea level pressure, so the sea level pressure changing or using the Watch in a place which has a different sea level pressure will affect the altitude reading.
- To achieve a more accurate reading, sea level pressure need to be updated from place to place and from time to time.

How to Adjust the Altimeter by Using Sea Level Pressure Adjustment

- The Watch can adjust the current altitude reading by sea level pressure adjustment.
- To select the Adjustment Display, hold the [M] button in Altimeter Mode. Then press the [M] button to select among the Zero Altitude, Absolute Altitude, Sea Level Pressure and Factory Default Adjustment.
- To adjust the Watch by using Sea Level Pressure Adjustment, press the [S/S] button in Sea Level Pressure Display, and the sea level pressure reading will appear.
- When sea level pressure reading is appeared, press the [S/S] or [L/R] button to increase or decrease the number to the target number. (Hold down the button changes the number at a higher speed).
- If the adjustment is completed, hold the [M] button to confirm adjustment and exit the adjustment display.

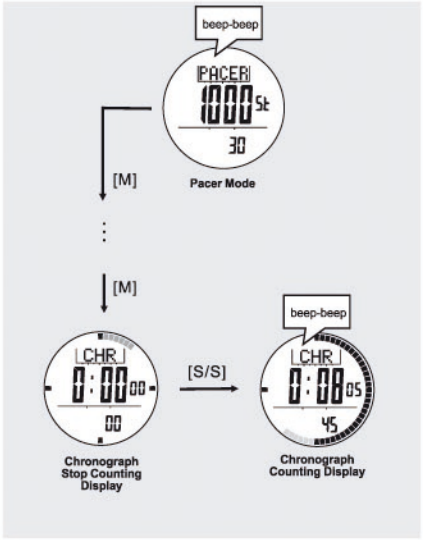
10.5 Altimeter Mode - *Factory Default Adjustment*



How to Adjust the Altimeter by Using Factory Default Adjustment

- The Watch can also adjust the altitude reading calculation back to using factory default value.
- To select the adjustment display, hold the [M] button in Altimeter Mode. Then press the [M] to select among the Zero Altitude, Absolute Altitude, Sea Level Pressure and Factory Default Adjustment.
- To adjust the Watch by using factory default adjustment (restore to factory default by setting sea level pressure to 1013.2mb), press the [S/S] button in Factory Default Display, and the indicator "NO" will appear.
- When the indicator "NO" is appeared, press the [S/S] or [L/R] button to select between "YES" (reset the Watch to factory default) or "NO" (abort the resetting).
- To exit Adjustment Display, hold the [M] button for 2 seconds, and then the Watch will go back to Altimeter Mode. If the "YES" Display is selected when exiting the Adjustment Display, the "DONE" Display will appear for 2 seconds prior to the normal operation.

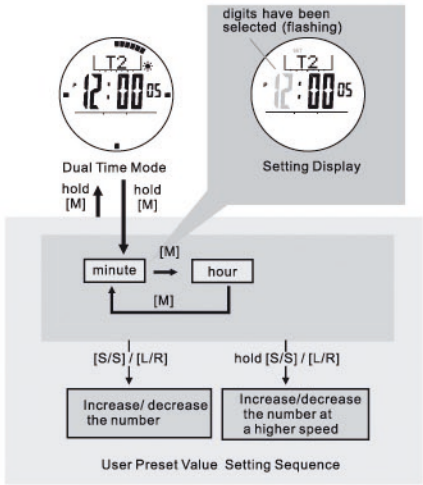
8.2 Pacer Mode - *Link with Chronograph*



How to use the Pacer when it links with Chronograph Mode

- When Pacer Mode is ON: Press the [M] button to select Chronograph Mode.
- Press the [S/S] button will start the counting and beeping at the same time.
- When the Chronograph is counting and the watch is beeping, pressing the [S/S] button can stop the beeping sound and the chronograph at the same time.

9.0 Dual Time Mode - *Dual Time and Setting the Dual Time*



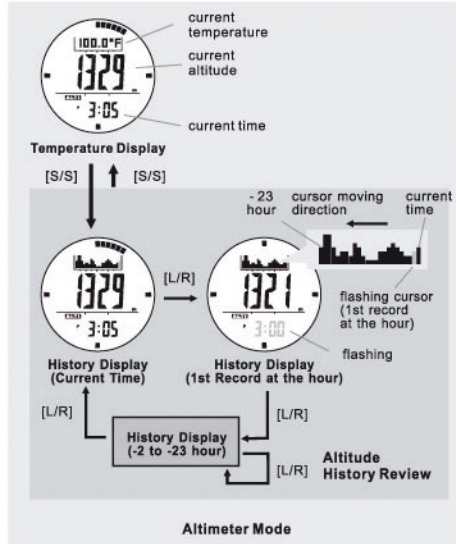
Dual Time Mode

- The Watch includes a function to show the time for a second time zone - Dual Time Mode.
- The second digit of the dual time synchronizes with the Current Time.

To Set the Dual Time

- To select setting display, hold the [M] button for 2 seconds in Dual Time Mode, and the flashing "***SET***" icon will appear.
- In setting display, press the [M] button to change the selection between minute and hour.
- When the digits are flashing (selected), press the [S/S] / [L/R] button to increase / decrease the number. (Hold down the button change the number at a higher speed).
- When the setting is completed, press and hold the [M] button to exit the setting display.

10.0 Altimeter Mode - *Temperature and History Display*



Functional Display

- The Watch includes two Altimeter functional displays: Temperature and History Display.
- One of the two functional displays will be appeared on the top row of the display. The current (history) altitude and the current (history) time shows on the middle row and bottom row of the display respectively.
- To perform force detect function which get one reading immediately, hold down [L/R] button.

Temperature Display

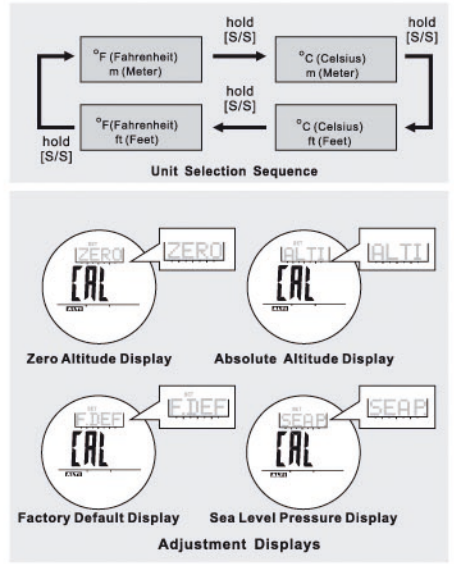
- In Temperature Display, the top display shows the current temperature in degree Celsius (°C) or degree Fahrenheit (°F).

IMPORTANT: If you want to have an accurate reading of air temperature, you must remove the watch from the wrist that allows no body temperature effect on your watch.

History Display

- The Watch records the altitude reading automatically every hour at the hour, i.e 1:00, 2:00, 3:00 and etc. These records will be plotted into a altitude record graph.
- In History Display, the altitude record graph shows on the top row of the display.
- To review the altitude records of the last 23 hours, press the [L/R] button to move cursor left cyclically, then the respective altitude record and its recording time (flashing) will appear on the display following the adjacent diagram.

10.1 Altimeter Mode - *Unit Selection and Altimeter Adjustment*



How to Switch between Units

- The Watch can display altitude in meter (m) or feet (ft); the Watch can display temperature in degree Celsius (°C) or degree Fahrenheit (°F).
- To switch among different unit, hold down the [S/S] button to change the units following the adjacent units select sequence.

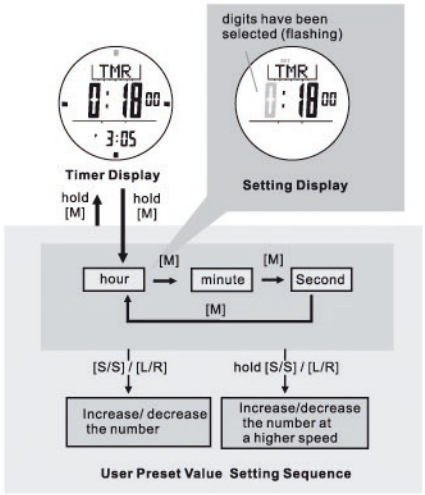
Altimeter Adjustment

- There are 4 kinds of adjustment method: Zero Altitude, Absolute Altitude, Sea Level Pressure and Factory Default Adjustment.
- Zero Altitude: Adjust altitude mandatory to zero for relative altitude measurement. If the altimeter is adjusted by Zero Adjustment, the indicator " ***r*** " will be appeared on the display.
- Absolute Altitude: Set altitude to known value and it can recall for next setting.
- Sea Level Pressure: Input a specific sea level pressure which get from official site.
- Factory Default: Restore the Watch to default factory setting where assume Sea Level Pressure is 1013.2mb

NOTE: Altitude is calibrated independently on each mode. For example, if absolute altitude is selected, effect of the sea level pressure previous setting will be ignored.

NOTE: The Watch includes an automatic Sea Level Pressure comparison feature, this smart feature allows NO fluctuation altitude readings will be recorded when staying at the same altitude.

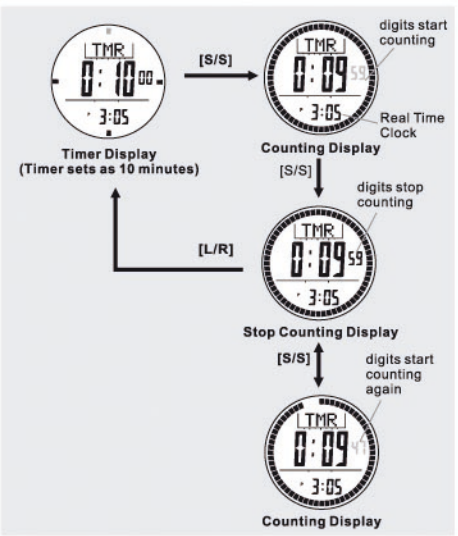
7.1 Timer Mode - *Setting the User Preset Value*



How to Set the User Preset Value

- To select setting display, hold the [M] button for 2 seconds, and the flashing "***SET***" icon will appear.
- In setting display, press the [M] button to change the selection among hour, minute and second.
- When the digits are flashing (selected), press the [S/S] or [L/R] button to increase / decrease the number. (Hold down the button change the number at a higher speed).
- When the setting is completed, hold the [M] button to exit the setting display.

7.2 Timer Mode - *Using the Timer*



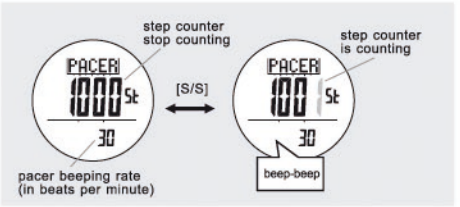
How to Use the Timer

- When the Timer is set, press the [S/S] button to start the timer. Press the [S/S] button once again to stop the timer.
- The time to 'Zero' will be shown on the display continuously.
- In last 10 minutes, it will beep for every minute, it will beep for every 10 seconds in the last one minute and beep for every second in the last 5 seconds.
- As countdown time is reached, a beep sound which will last for 30 seconds. Press any button in this period will terminate the beep sound prematurely.
- The last counting value will be loaded automatically at the end of the beep sound.

How to Reload the Timer

- To reload the timer (existing preset counting time) for a new counting, press the [L/R] button when the timer was stopped.
- To start a new counting using a new preset counting time, set the timer again.

8.0 Pacer Mode - *Using the Pacer*



Pacer Mode

- When the pacer is activated, it will generate beeps at a pre-defined beeping rate.
- The beeping rate can be set from 30 to 180 beats per minute (BPM) in step of 5.

How to Use the Pacer Mode

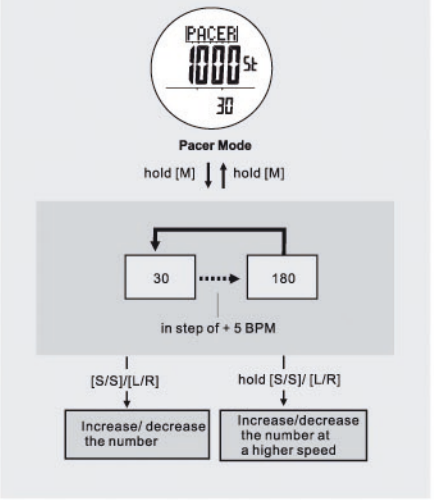
- Once the beeping rate has been set (for example 30 BPM), press the [S/S] button will start the beeping.
- When the watch is beeping, press the [S/S] button can stop the beeping.

Step Counter

- In supplementary of Pacer Function, when the Pacer beeps once, the step counter will advance one .
- When the pacer is activated and the step counter starts counting, pressing the [S/S] button can stop the pacer and step counter at the same time.
- The maximum counting range of the step counter is 99999 steps.
- To reset the step counter to 0, hold the [L/R] button when the pacer was stopped.

NOTE: When the pacer is running continuously for 8 hours, it will be stopped automatically for power saving.

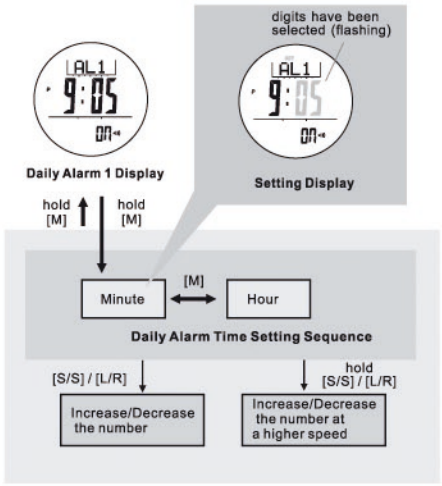
8.1 Pacer Mode - *Setting the Pacer value*



How to Set the Beeping Rate

- To select the setting display, hold down the [M] button for 2 seconds in the Pacer Mode.
- When the beeping rate digits start to flash, press the [S/S] or [L/R] button to increase / decrease the number. (Hold down the button to change the number at a higher speed).
- When the setting is completed, press and hold the [M] button to exit the setting display.

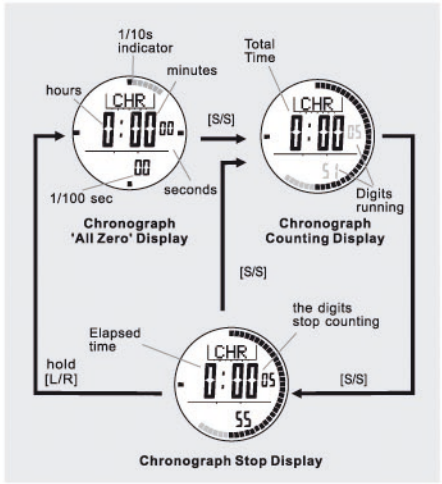
5.1 Daily Alarm Mode - *Setting the Alarm*



How to Set the Alarm 1 and Alarm 2

- To select the setting display, hold the [M] button for about 2 seconds in Alarm 1 (2) Display, then the flashing "***SET***" icon will appear.
- In setting display, press the [M] button to change the selection between minute and hour.
- When the digits are flashing (selected), press the [S/S] or [L/R] button to increase / decrease the number. (Hold down the button change the number at a higher speed).
- When the set is completed, press and hold the [M] button to exit the setting display.

6.0 Chronograph Mode - *Start/Stop the Chronograph*



Chronograph Mode

- The Watch includes a function to measure elapsed times, accumulative elapsed time and lap times - Chronograph Mode.
- The display shows the 'All Zeros' display when the chronograph is being selected the first time or the chronograph has been reset.

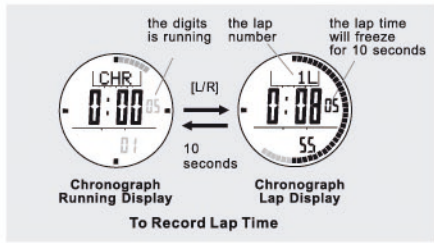
How to Start/Stop the Chronograph

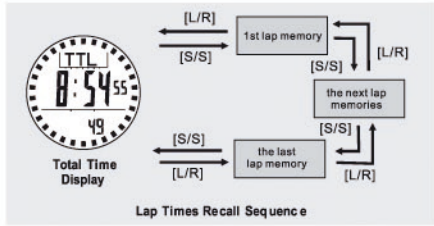
- When the chronograph is stopped (not counting), press the [S/S] button once to start the chronograph (counting); press the [S/S] button once again to stop the chronograph (not counting).
- The elapsed time between the two keystrokes will appear on the display.
- Repeat the above mentioned steps to get the accumulative elapsed time of which the chronograph is running.

How to Reset the Chronograph

- To record a new set of elapsed time, hold the [L/R] button for 2 seconds to reset the chronograph to 'All Zeros' display when the chronograph was stopped.
- In 'All Zeros' display, the chronograph is ready for a new counting.

6.1 Chronograph Mode - *Recording and Recalling Lap Time*





How to Record Lap Time

- The chronograph can measure elapsed time without stopping the counting - lap time.
- The Chronograph Mode allows recording lap time up to 100 laps.
- When the chronograph is counting, press the [L/R] button once to record a lap time (this key operation will not affect the counting).
- The lap number and lap time will appear on the display for 10 seconds, and it returns to counting display automatically.
- Repeat the steps mentioned above to get another lap time.

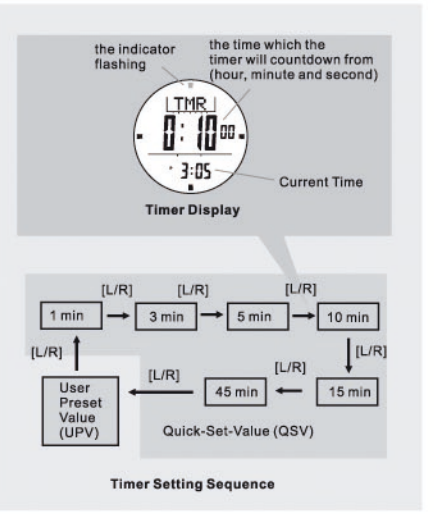
How to Recall Lap Times

- To recall lap times, hold down the [M] button in the Chronograph Display.
- When the Total Time Display is appeared, press the [S/S] or [L/R] button to check the next / previous lap time.
- Hold down the [M] button any time to back to the Chronograph Display.

How to Reset Lap times

- To record a new set of lap times, hold the [L/R] button for 2 seconds in the Chronograph Stop Display.

7.0 Timer Mode - *Countdown Timer and the Quick-Set-Value*



Countdown Timer

- The Watch includes a countdown timer feature: the Timer Mode.
- The Timer starts counting from the preset value to zero and stops at zero.

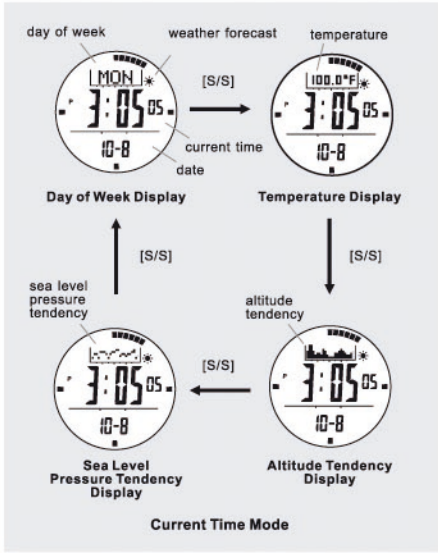
The Quick-Set-Value (QSV)

- The Quick-Set-Value is a set of default values which preset in the Watch for using the timer more easily.
- There are 6 Quick-Set-Values: 1, 3, 5, 10, 15 and 45 minutes, and these values can NOT be changed by the user.

The User Preset Value (UPV)

- The User Preset Value is a value which can be changed by the user.
- The setting range is up to 99 hours 59 minutes 99 seconds.
- Once the User Preset Value has been set, such as 30 minutes, that value is stored into the Watch for the user to recall next time.
- To set the UPV, check the coming section "How To Set the User Preset Value" for more detail.

4.0 Current Time Mode - *Functional Display*



Functional Display

- The Current Mode includes 4 kinds of functional display:
  - Day of Week Display
  - Temperature Display
  - Altitude Tendency Display and
  - Sea Level Pressure Tendency Display
- To select among different functional display, press the [S/S] button following the adjacent diagram.

Automatic Display Switching

- To activate the automatic switching feature, hold down the [S/S] button.
- As long as the button is hold, one of the 4 functional displays will be appeared one by one.

4.1 Current Time Mode - *Weather Forecast Feature*

Weather Forecast Feature

- A special feature of the Watch is the coming weather predicting function. It works by analyzing the changes of the past air pressure.

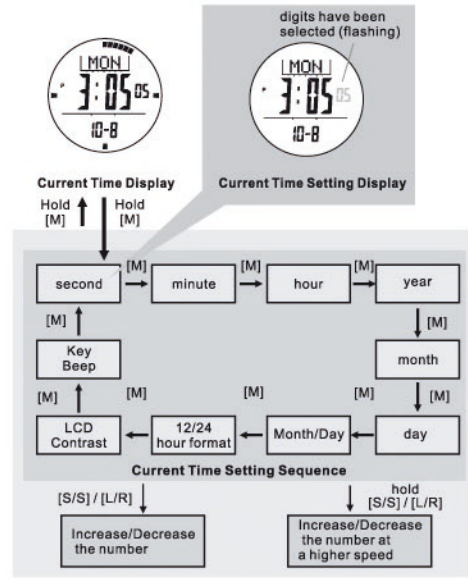
How to Indicate the Coming Weather

- The Watch provides 4 different symbols to indicate the forecast weather, which includes:
  - Sunny
  - Cloudy with Sun
  - Cloudy
  - Raining
- The symbols will be shown only in Current Time Mode and Dual Time Mode.

IMPORTANT: Since the Watch predicts the coming weather by using the data of the changes in the air pressure, it is highly recommended to stay at the same altitude for at least 24 hours for a higher accuracy predication.

IMPORTANT: The Watch predicts the weather by adopting general weather prediction principles, it is NOT capable to reflect the dramatic changing of weather within a very short period of time.

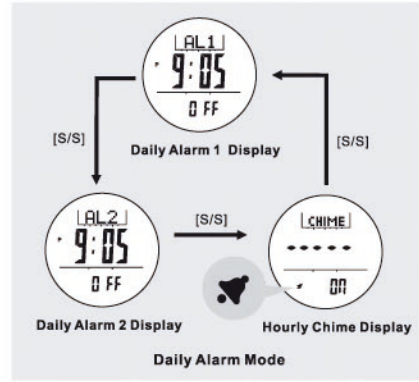
4.2 Current Time Mode - *Setting the Current Time*



How to Set Current Time

- To select the setting display, press and hold the [M] button for about 2 seconds in Current Time Mode. In setting display, the flashing "***SET***" icon will appear.
- In setting display, press the [M] button to change the selection following the adjacent Current Time Setting Sequence.
- When the second digits are flashing (selected), press the [S/S] or [L/R] button to reset the digits to "00".
- When the digits are flashing (selected), press the [S/S] or [L/R] button to increase / decrease the number. (Hold down the button change the number at a higher speed).
- When month-day order setting is selected, press the [S/S] or [L/R] button to select between month-day and day-month format. When 12/24 hour format setting is being selected, press the [S/S] button to select between 12 and 24 hour format.
- When LCD contrast is selected, press the [S/S] or [L/R] button to increase / decrease the contrast level (1 to 10). When key beep setting is selected, press the [S/S] or [L/R] button to select between ON and OFF the beep.
- When the setting is completed, press and hold the [M] button to exit the setting display.

5.0 Daily Alarm Mode - *Daily Alarm 1, Daily Alarm 2 and Chime Display*



Daily Alarm 1 and Daily Alarm 2

- The Watch includes two daily alarms: Daily Alarm 1 and Daily Alarm 2. The Daily Alarm 1 and Daily Alarm 2 are working independently.
- Press the [S/S] button to switch among the Daily Alarm 1, Daily Alarm 2 and Chime Display following the adjacent diagram.

How to Turn ON/OFF the Daily Alarm

- To turn ON/OFF the Daily Alarm 1 (2), press the [L/R] button in Daily Alarm 1 (2) Display.
- When the Daily Alarm 1 (2) is ON, the alarm indicator ' •))) ' will appear.
- If the alarm indicator is appeared, the Watch will sound at the preset alarm time every day. When the alarm sounds, press any button to stop the beep.

How to Turn ON/OFF the Hourly Chime

- To turn ON/OFF the Hourly Chime, press the [L/R] button in Chime Display.
- When the chime is ON, the chime indicator ' ' will appear. If the Chime indicator is appeared, the Watch will beep once at the hour every hour.